

Memorandum

MIAMI-DADE
COUNTY

Date: March 14, 2007

To: Honorable Chairman Bruno A. Barreiro
and Members, Board of County Commissioners

From: George M. Burgess
County Manager

Subject: Report: Water Transit Services for Miami-Dade County

TC
Agenda Item No. 8(C)

This report responds to Resolution No. 70-07 sponsored by Commissioner Sally A. Heyman and adopted by the Board of County Commissioners (BCC) on January 25, 2007, to examine the feasibility of implementing an express water transit service from Matheson Hammock to downtown Miami and from Haulover Park to downtown Miami.

SUMMARY

A water transit service in Miami-Dade County is a feasible project. Two express routes were evaluated; from Haulover Park to Downtown Miami and from Matheson Hammock Park to Downtown Miami. The service can be implemented as a "pilot" project for a minimum of three years to conduct a true test of its effectiveness as a new transportation service mode that can help alleviate traffic congestion along major transportation corridors.

During this process, land and water inspections were conducted to evaluate travel time and physical characteristics of the proposed docking facilities. Following are the highlights of the report:

1. Restrictions

The major concern for the implementation of the service are the regulations established along Biscayne Bay for the protection of manatees, as well as boat safety. There are two seasons: low season from May to October and high season from November to April, where regulations are more restrictive and speed is limited due to no-wake and idle speed zones.

2. Travel Time

In coordination with the Department of Environmental Resources Management (DERM), a field trip was conducted on the water to measure travel times and illustrate with pictures the potential concerns for the development of the service. Following are the average travel times under the worst case scenario (from November to April) for a non-stop express service:

- a. Haulover Park to Downtown Miami: 59 minutes
- b. Matheson Hammock Park to Downtown Miami: 28 minutes

3. Vessel

Interested firms have proposed two types of vessels for operating the proposed water transit service:

- a. Catamaran
- b. Hovercraft

Both vessels have pros and cons. The catamaran could be a hazard for the manatees and would need to be equipped with a state-of-the-art detection system to avoid them. On the other hand, while the hovercraft does not represent a hazard for the manatees because the vessel does not contact the water, it must be made ADA compliant.

4. Docking Facilities

Both vessels could be accommodated in the proposed marinas. Due to its versatility, the hovercraft can land on the ground with minor improvements.

5. Funding

Funding could be available at federal, state and local levels, such as:

- a. Ferry Boat Discretionary (FBD) Program (federal)
- b. Transportation Regional Incentive Program (TRIP) and other transit related programs (state)
- c. People's Transportation Plan (PTP) (local)

6. Capital and Operating Cost

Considering both types of vessels proposed for the service, following are preliminary estimates for:

a. Capital Costs

The capital cost estimated for the project is between \$13M to \$16M. This includes the vessels, as well as the docking and terminal facilities and other costs.

b. Operating Costs

Based on the information provided by the potential proposers, the operating estimated cost is between \$2.5M to \$4.5M per year. These costs include all operating and maintenance expenses, including insurances and fuel.

7. Time Schedule

Due to the complex characteristics of this project, the earliest start of the service is projected to be late 2009.

REPORT RECOMMENDATIONS

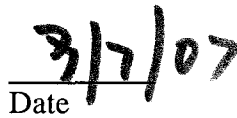
Following are some key recommendations included in the report:

1. Close coordination with DERM to evaluate the proposed vessels. This is a most important aspect of the project. If the vessels do not meet the requirements to protect the manatees, this is a fatal flaw and consequently, the project could not be implemented.
2. Close coordination with the Park and Recreation Department (PRD) to evaluate the proposed terminal and docking facilities. This also includes an evaluation of the parking facilities and improvement necessities for the projected service.
3. Hire a marine contractor to conduct the permitting process, evaluate the water and land needs of the service, as well as for the design and inspection during the construction of the facilities.

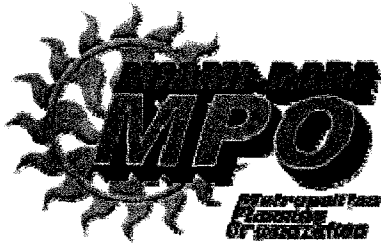
4. Initiate the process to secure the funding.
5. Conduct a bidding process for the construction of the facilities.
6. Conduct a Request for Proposal (RFP) to hire a contractor for the management and operation of the service.



Assistant County Manager



Date



Water Transit Services

March 2007

Executive Summary Report

I. BACKGROUND

The Metropolitan Planning Organization (MPO) conducted two studies to evaluate the feasibility of implementing waterborne services along Miami-Dade waterways. The first study determined the feasibility of implementing such service along Biscayne Bay, the Miami River and in other canals within the county. The second study recommended a plan for implementing the service mostly along the bay.

Based on these results, the MPO Governing Board and the Board of County Commissioners (BCC) passed resolutions requesting additional efforts for implementing waterborne services along Biscayne Bay. Following is a summary of these efforts:

1. A Request for Information (RFI) was issued requesting interested firms to provide a letter of interest to participate in water transit services.
2. Three (3) firms submitted their proposals, including information regarding:

Company Background - Experience - Project Organization - Service Plan - Projected Ridership - Ancillary Facilities - Time Schedule - Capital Costs - Operating Costs Financing - Support from the County - Steps Needed Before Starting the Service Operator Participation - Environmental - Proposed Technology - Insurances
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3. Individual meetings were conducted with the firms to clarify aspects included in their proposals.

II. MAJOR CONCERNS

After evaluating all proposals, it was found that the following concerns could be considered as fatal flaws for the development and implementation of the proposed service, if those items could not be successfully overcome.

A. Permitting

For the operation of the service and the construction of terminal facilities, several permits are required. The agencies that need to issue such permits are: U.S. Army Corps of Engineering (ACOE), Department of Environmental Resources Management (DERM), Fish and Wildlife Conservation Commission, the State Department of Environmental Protection Agency, as well as the County and municipal building and zoning departments. Additionally, coordination needs to be established with other agencies, such as: U.S. Coast Guard, Miami-Dade Park and Recreation Department, Miami-Dade Transit and the Miami-Dade Department of Procurement Management. The process for obtaining all permits could take up to 18 months.

B. Environmental

Vessels speed on Biscayne Bay is regulated for the protection of manatees, boat safety and port security. Manatees are classified as an endangered specie and are protected by Federal and state regulations. There are two seasons that control these regulations: low season from May to October and high season from November to April. During the high season, no-wake zone and idle speed require vessels to go as low as 7 mph.

C. Travel Time

Based on the above referenced condition, the speed factor becomes a major concern. To provide an acceptable service, the travel time needs to be optimized to compare favorably to travel time by other modes (private auto, bus...).

D. Vessels

To protect the manatees and provide an acceptable travel time, the type of vessel(s) proposed for the service has to meet both of these conditions favorably. Currently, two vessel types are considered as possibilities for the service: a catamaran type vessel and a hovercraft.

III. FIELD INSPECTIONS

Staff conducted field inspections to confirm travel times on the water and the physical conditions of the proposed terminal facilities.

A. Travel Time

The water inspection was conducted with DERM under the worst case scenario, considering the more restrictive regulations on water. Following are the results from this inspection:

1. Haulover Park to Downtown Miami - 59 minutes non-stop
2. Matheson Hammock Park to Downtown Miami - 28 minutes non-stop
3. Aventura to Downtown Miami - 96 minutes with two intermediate stops. This time does not include approach to the dock and the boarding and alighting of passengers.

B. Land Facilities

Field inspections were conducted to the following locations:

1. Aventura

This location is not recommended at this stage. In addition to the longer travel time, this facility does not have parking, an elementary school and a community recreation center are located adjacent to the proposed dock facilities and improvements are needed to the existing dock.

2. Haulover Park

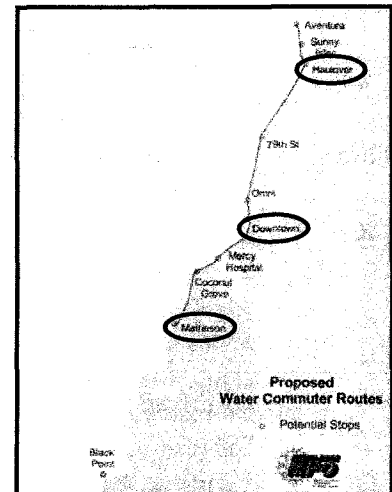
This facility is recommended as a terminal facility. Parking and access to transit are available. This facility can accommodate both vessels type considered for the operation.



City Cat - Australia



Hovercraft



○ Recommended Terminals

3. Pelican Harbor

This facility can be used as a potential intermediate stop in the future. The south facility has parking available and it can also accommodate the catamaran or the hovercraft. In the case of the catamaran vessel, it is necessary to rebuild the existing abandoned dock or move the operation to the marina, north of NE 79th Street.

4. Omni Marina

This facility is not recommended as a terminal facility at this stage. No parking is available, the marina is heavily used and surface accessibility is not appropriate.

5. Downtown Miami - Chopin Plaza

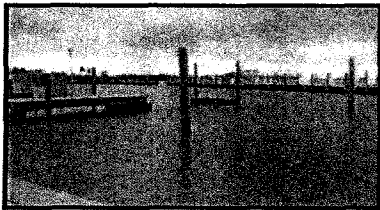
This facility is recommended as a destination point for both proposed routes. There is an existing facility that can be used for the service. The Metromover is one block away.

6. Matheson Hammock Marina

This facility is recommended as a terminal for the south route. Parking is available and the marina is capable of handling both vessels. The existing dock and ramps can accommodate the operation for the catamaran and hovercraft vessels.

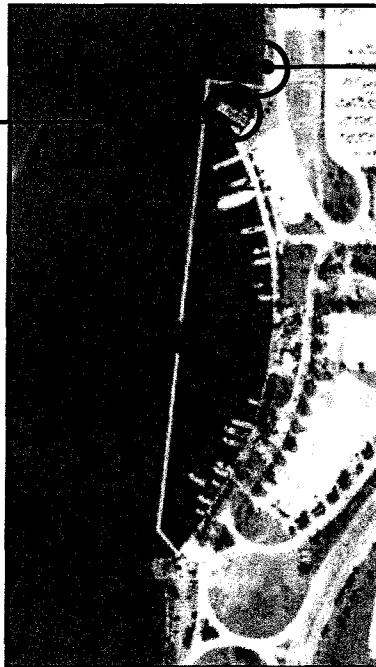
Following there are some aerals and pictures showing the recommended terminal sites.

Haulover Park



**Catamaran Potential
Docking Facility**

Improvements are needed for the abandoned dock, including piling, construction of the deck and wider pier for passenger access.



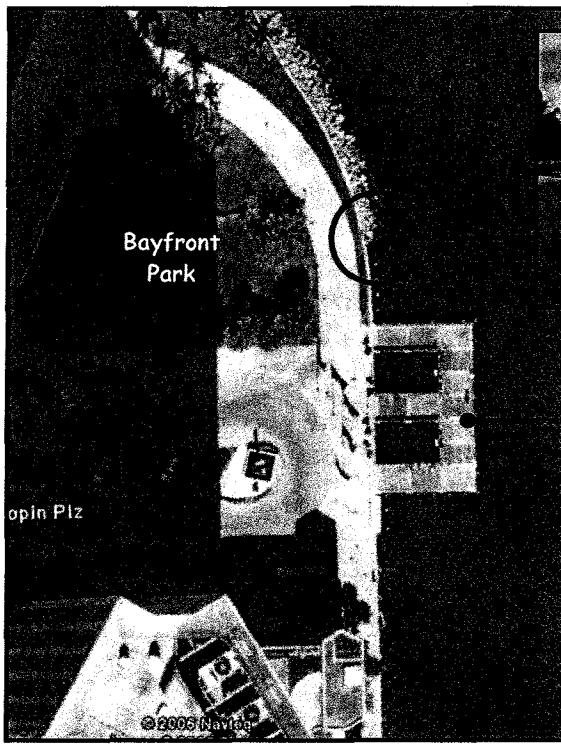
**Hovercraft Proposed
Landing Facility**

A ramp could be constructed on the north side of the marina. This ramp not necessarily has to be in concrete. A portable ramp needs to be accessible for the boarding and alighting of passengers.

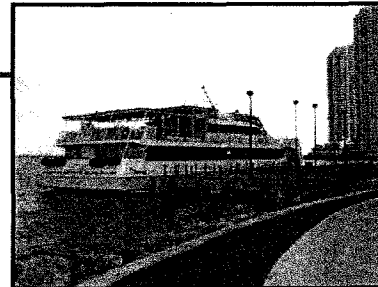
Recommended Improvements:

Construction of a terminal to accommodate passengers, including: benches (seats), ticketing system, PA system, vending machines, rest rooms, waiting area and A/C, among others. Cleaning and marking of the parking area. Improve lighting and security in parking facility and the surroundings. Install appropriate signs.

Downtown Miami



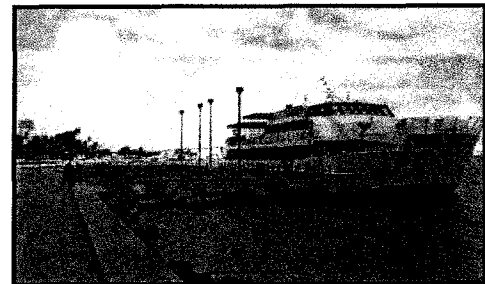
Hovercraft proposed location for the ramp and the area in the Bayfront Park that could be considered for a terminal facility.



Existing Docking Facility

Recommended Improvements:

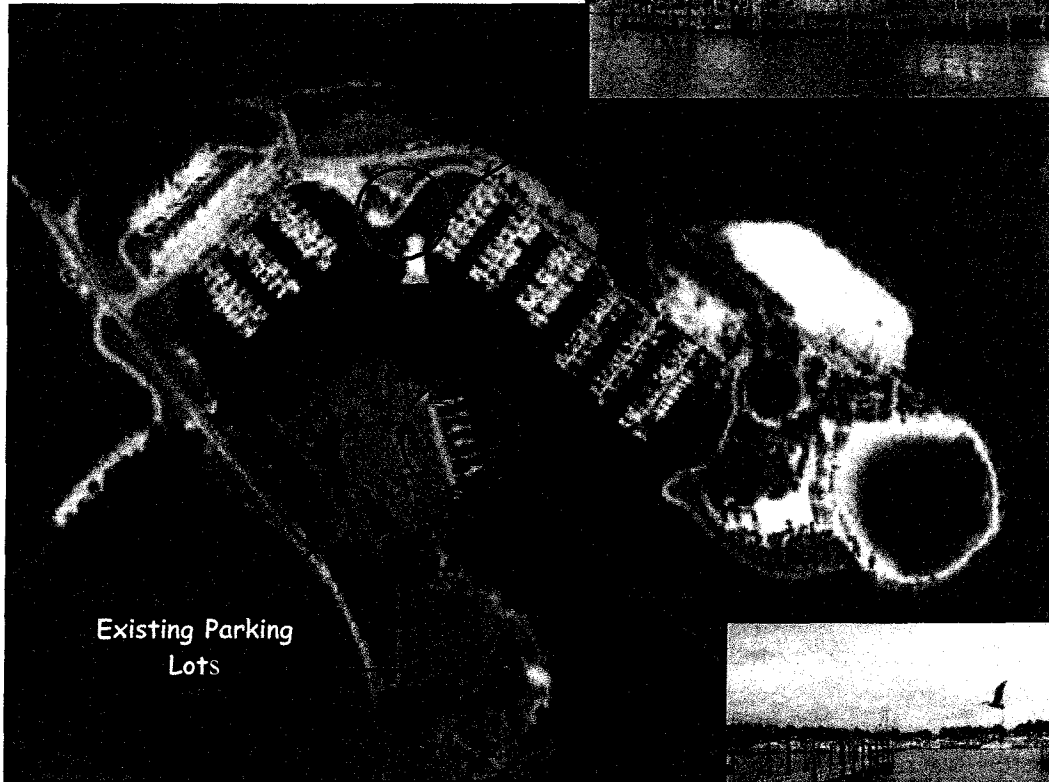
Construction of a terminal to accommodate passengers, including: benches (seats), ticketing system, PA system, vending machines, rest rooms, waiting area and A/C, among others. Improve lighting and security in the surroundings. For the hovercraft, the existing dock could also be used. However, a metal ramp could also be considered for the north side of the marina. Considerations should be given to create a transit shuttle servicing Brickell and Biscayne areas, as well as those areas not accessible by the Metromover.



Downtown is considered the destination terminal. Parking is limited, but Metromover station is located one block from the existing dock.

Matheson Hammock Park

Existing docking facilities for the catamaran vessel.



Existing Parking
Lots

Existing ramps that could be used by
the hovercraft.



Recommended Improvements:

Construction of a terminal to accommodate passengers, including: benches (seats), ticketing system, PA system, vending machines, rest rooms, waiting area and A/C, among others. Cleaning and marking of the parking area. Improve lighting and security in parking facility and the surroundings. Install appropriate signs. Consideration should also be given for establishing shuttle services connecting residential and activity centers to this facility. Entrance to the park would need additional improvements to provide better accessibility to the marina. Existing roadway needs improvements regarding lighting and traffic. Coordination is needed with the Department of Park and Recreation regarding the current parking fee for accessing this facility.

IV. PROPOSED SERVICE

A. Routes

It is recommended to start the service with two express routes from Haulover Park to Downtown Miami and from Matheson Hammock Park to Downtown Miami.

B. Headways

1. Peak Period: 15-20 minutes
2. Off-Peak: 60 minutes

C. Schedule

Due to parking requirements and availability it is recommended to provide service only during weekdays from 6:00 am to 8:00 pm.

D. Fare

This is a sensitive factor that could determine the success or failure of the project. Therefore, the fare should be reasonable to motivate drivers to use the service.

E. Estimated Patronage

Based on the study conducted by Kimley-Horn and Associates, the proposed routes could generate an average of 200,000 passengers per year.

V. CAPITAL AND OPERATING COSTS

This estimates may vary according to the vessel to be selected for the operation of the service. The catamaran requires different docking facilities than the hovercraft. This also applies to the operating and maintenance expenses attached to each technology.

A. Capital Costs

Considering the two current vessels proposed for the service (catamaran and hovercraft) the capital cost estimated is between \$13M to \$16M. It's important to indicate that this is a bulk estimate that includes the vessels, as well as the docking and terminal facilities, among others.

B. Operating Costs

Based on the information provided by the potential proposers, the operating costs are between \$2.5M to \$4.5M per year, depending of the vessel. This cost includes all operating and maintenance expenses including insurances and fuel.

VI. FUNDING

There are Federal, state and local funding sources that could be available for the implementation of the project, among them:

1. The federal Ferry Boat Discretionary (FBD) Program
2. The state Transportation Regional Incentive Program (TRIP)
3. People's Transportation Plan (PTP) funds could be accessible at local level.

VII. TIME SCHEDULE

Follow is a time schedule and proposed steps for the implementation of the water transit services along Biscayne Bay.

PRELIMINARY TIME SCHEDULE			
#	DESCRIPTION	FROM	TO
1	Presentations: <ul style="list-style-type: none"> Transit Committee (TC), Transportation Planning Council (TPC), MPO Governing Board and Board of County Commissioners (BCC) 	March 2007	April 2007
2	Request for Qualifications (RFQ) for Vessels: <ul style="list-style-type: none"> Prepare documentation, advertising, submittal of proposals, evaluation and selection 	June 2007	Sept. 2007
3	Request for Proposal (RFP) for marine Contractor: <ul style="list-style-type: none"> Prepare documentation, advertising, submittal of proposals, evaluation and selection 	August 2007	October 2007
4	Secure Funding at Federal, State and Local levels	August 2007	July 2008
5	Permitting	October 2007	October 2008
6	Request for Proposals (RFP) for management and operation: <ul style="list-style-type: none"> Prepare documentation, advertising, submittal of proposals, evaluation and selection 	January 2008	May 2008
7	Design and Construction of Facilities	May 2008	August 2009
8	Design and Construction of Vessels	July 2008	August 2009
9	Start Service	Sept. 2009	October 2009